



## **Humor an Antidote for Stress**

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Humor is a quality of perception that enables us to experience joy even when faced with adversity. Stress is an adverse condition during which we may experience tension or fatigue, feel unpleasant emotions, and sometimes develop a sense of hopelessness or futility. (1,4,5) Nurses work in stress-filled environments that place demands upon their physical, emotional, and spiritual well being. (1,2,3,4) Responding to these demands while protecting ourselves from their potential harmful impact will help us remain healthy. This paper describes the therapeutic consequences of using humor as a self-care tool to cope with stress.

Hans Selye, a pioneer researcher in psychosomatic medicine, defines stress as "the rate of wear and tear within the body" as it adapts to change or threat. (6) Chronic exposure to job stress can lead to burnout which Christine Maslach defines as "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people work' of some kind". (1)

Nurses are compassionate and caring individuals working with people who are suffering, and thus are at risk for job stress & burnout. We may have feelings of failure when our efforts are ineffective; anger and frustration arise when patients reject our care or are non-compliant with treatment; we feel grief when patients die.(7) The constant experience of these emotions leads to stressful changes within our body.

Finding humor in a situation and laughing freely with others can be a powerful antidote to stress. Our sense of humor gives us the ability to find delight, experience joy, and to release tension. (8) This can be an effective self-care tool.

This paper describes research showing that humor can stimulate the immune system, enhance perceptual flexibility, and renew spiritual energy.

### **Historical Perspective on Humor and Health**

The word humor itself is a word of many meanings. The root of the word is "*umor*" meaning liquid or fluid. In the Middle Ages, humor referred to an energy that was thought to relate to a body fluid and an emotional state. This energy was believed to determine health and disposition (i.e. "He's in a bad humor"). (9) A sanguine humor was cheerful and associated with blood. A choleric humor was angry and associated with bile. A phlegmatic humor was apathetic and

associated with mucous. A melancholic humor was depressed and associated with black bile. (10)

In modern dictionaries, humor is defined as "the quality of being laughable or comical" or as "a state of mind, mood, spirit". Humor then is flowing; involving basic characteristics of the individual expressed in the body, emotions, and spirit.

The word, to heal, comes from the root word "haelen" which means to make whole. Bringing together the body, mind and spirit can be healing. As Socrates once commented on the medical theory of his day:

"As it is not proper to cure the eyes without the head, nor the head without the body; so neither is it proper to cure the body without the soul." (10)

### **Humor and Effect on the Spirit**

The soul is the cradle of the spirit. Spirit can be defined as the vital essence or animating force of a living organism, often considered divine in origin. This energy is referred to as "Chi" in the Chinese tradition, as "Ki" in the Japanese tradition, It can be visioned using Kirilian photography, or felt during the application of healing touch. Spirit can be influenced by the feelings of joy, hope, and love. (4) The experience of laughter momentarily banishes feelings of anger and fear and provides moments of feeling carefree, lighthearted, and hopeful.(12)

When the spirit is depleted, nurses can experience what is known as "compassion fatigue" — feeling that they have very little left to give. (1,33) Usually this occurs when the nurse's self-care program has been inadequate. Finding humor in our work and our life can be one way to lift the spirit's energy level and replenish ourselves from compassion fatigue.(39,40,41)

### **Norman Cousins' Experience Leads to Modern Research**

Norman Cousins first called the attention of the medical community to the potential therapeutic effects of humor and laughter in 1979 when he described his utilization of laughter during his treatment for ankylosing spondylitis. (12) Believing that negative emotions had a negative impact on his health, he theorized that the opposite was also true, that positive emotions would have a positive effect. He believed that the experience of laughter could open him to feelings of joy, hope, confidence and love.

Cousins, although one of the best known proponents of using positive emotions to improve health, was certainly not the first to assert such a relationship. As early as the 1300s, Henri de Mondeville, professor of surgery wrote:

"Let the surgeon take care to regulate the whole regimen of the patient's life for joy and happiness, allowing his relatives and special friends to cheer him, and by having someone tell him jokes." (11)

The difference is that we now have scientific studies of that relationship.

Cousins spent the last 12 years of his life at UCLA Medical School in the Department of Behavioral Medicine exploring the scientific proof of his belief. He established the Humor Research Task Force that coordinated and supported worldwide clinical research on humor. (4)

### **Humor and Laughter Effect the Body**

Stress has been shown to create unhealthy physiological changes. The connection between stress and high blood pressure, muscle tension, immunosuppression, and many other changes (13) has been known for years. We now have proof that laughter creates the opposite effects. It appears to be the perfect antidote for stress.

Lee Berk and Stanley Tan, at Loma Linda University School of Medicine's Dept. of Clinical Immunology, have produced carefully controlled studies showing that the experience of laughter lowers serum cortisol levels, increases the amount of activated T lymphocytes, increases the number and activity of natural killer cells, and increases the number of T cells that have helper/suppressor receptors. In short, laughter stimulates the immune system, off-setting the immunosuppressive effects of stress. (13,15)

This research is part of the rapidly expanding field of psychoneuroimmunology, which defines the communication links, and relationships between our emotional experience and our immune response as mediated by the neurological system. (16,17,37)

We know that, during stress, the adrenal gland releases corticosteroids (quickly converted to cortisol in the blood stream) and that elevated levels of these have an immunosuppressive effect. Berk's research demonstrates that laughter can lower cortisol levels and thereby protect our immune system. (13,15)

Activation of T cells provides lymphocytes that are "awakened" and ready to combat a potential foreign substance.

Natural killer cells are a type of immune cell that attacks viral or cancerous cells and do not need sensitization to be lethal. They are always ready to recognize and attack an aberrant or infected cell. This becomes very important in the prevention of cancer. Cells within our bodies are constantly changing and mutating to produce potential carcinogenic cells. An intact immune system can function appropriately by mobilizing these natural killer cells to destroy abnormal cells. (18)

Receptor sites are important as a communication link between the brain and the immune system. Emotions can trigger the release of neurotransmitters from neurons in the brain. These chemicals then enter the blood stream and "plug into" receptor sites on the surface of immune cells. When this occurs, that cell's metabolic activity can be altered in either a positive or negative direction. (35) Many cells within the body have different receptor sites on their surface; of particular interest in this research are those on the immune cells. (A useful overview of Berk's work is available in the December 1994 issue of the Humor and Health Letter. (50)

Other researchers have supported these findings. Locke at Harvard, showed that the activity of natural killer cells is decreased during periods of increased life change which were accompanied by severe emotional disturbance; whereas subjects with similar patterns of life change and less emotional disturbances had more normal levels of NK cell activity. (18) At the VA Medical Center in San Diego in 1987, Irwin noted that NK cell activity decreased during depressive reaction to life changes. (19) At the Ohio State University School of Medicine, Janice and Ronald Glaser studied the cellular immunity response patterns of medical students before examinations. Their work showed a reduction in the number of helper T cells and a lowered activity of the NK cell during the highly anxious moments just before the examination. (20,21)

Salivary immunoglobulin A is our first-line defense against the entry of infectious organisms through the respiratory tract. (23) At SUNY, Stone revealed that salivary immunoglobulin A response level was lower on days of negative mood and higher on days with positive mood. (22) This finding was quickly confirmed by two other researchers. Dillon, working at Western New England College; found subjects showed an increased concentration of salivary IgA after viewing a humorous video (24); while Lefcourt, from University of Waterloo in Ontario, showed that subjects who tested strong for appreciation and utilization of humor had an even stronger elevation of salivary IgA after viewing a humorous video. (25)

All this research, done in the last ten years, helps us understand the mind-body connections. The emotions and moods we experience directly affect our immune system. A sense of humor allows us to perceive and appreciate the incongruities of life and provides moments of joy and delight. These positive emotions can create neurochemical changes that will buffer the immunosuppressive effects of stress.

Laughter can provide a cathartic release, a purifying of emotions and release of emotional tension. Laughter, crying, raging, and trembling are all cathartic activities which can unblock energy flow.(43)

### **Humor and the Effect on the Mind**

In his book Stress without Distress, Selye clarified that a person's interpretation of stress is not dependent solely on an external event, but also depends upon their perception of the event and the meaning they give it(28); — how you look at a situation determines if you will respond to it as threatening or challenging. (5,29,30,31)

Because different people respond differently to the same environmental stimuli, some people seem to cope with stress better than others. (1,2,33) Sociologist Suzanne Kobassa has defined three "hardiness factors" (30,31), which can increase a person's resilience to stress and prevent burnout: — commitment, control, and challenge. If you have a strong commitment to yourself and your work, if you believe that you are in control of the choices in your life (internal locus of control), and if you see change as challenging rather than threatening; then you are more likely to cope successfully with stress. (29) One theme that is becoming more prominent in the literature is the idea that a causative factor in burnout is a sense of powerlessness. (1)

In this context, humor can be an empowerment tool. Humor gives us a different perspective on our problems and, with an attitude of detachment we feel a sense of self-protection and control in our environment. (26,27) As comedian Bill Cosby is fond of saying, "If you can laugh at it, you can survive it."

It is reasonable to assume that if locus of control measures strongly as internal, that a person will feel a greater sense of power and thus be more likely to avoid burnout. (3,30)

### **Humor and Locus of Control**

Presented in 1990 at the 8th International Conference on Humor in England, this author's research documented changes in locus of control and appreciation of humor, related to a humor training course. (3) Using the Adult Nowicki-Strickland Scale, with proven reliability and validity studies (34), we assessed the locus of control in 231 nurses in Pennsylvania, Kentucky, and California. We then administered Svebak's Sense of Humor Questionnaire, using only the subscales that have proven to be reliable and valid. (36) The experimental group then completed a six hour humor training course where they were given permission and techniques for appropriate use of humor with patients and coworkers. The control group had no such humor training. The same survey tools were then re-administered to each group six weeks later to determine changes in locus of control and appreciation of humor.

Using the Wilcoxon Matched Pairs Signed-Ranks Test, we found that there was a significant decrease in the measure for external locus of control in the experimental group with a 2-tailed P value of .0063. Using the same analysis for the control group, we found no significant change. We also examined the potential difference in initial locus of control scores between the experimental and control groups using the Mann-Whitney U and the Kolmogorov-Smirnov tests and found no significant differences in the two groups.

This study indicates that if one is encouraged and guided to use humor, they can gain a sense of control in their life. Use of humor represents what Kobassa calls cognitive control. (30) We cannot control events in our external world but we have the ability to control how we view these events and the emotional response we choose to have to them.(5) Further research would be needed to determine how long these effects persist.

Humor perception involves the whole brain and serves to integrate and balance activity in both hemispheres. Derks, at the College of William and Mary in Williamsburg, has shown that there is a unique pattern of brain wave activity during the perception of humor.(49) EEG's were recorded on subjects while they were presented with humorous material. During the setup to the joke, the cortex's left hemisphere began its analytical function of processing words. Shortly afterward, most of the brain activity moved to the frontal lobe, which is the center of emotionality. Moments later the right hemisphere's synthesis capabilities joined with the left's processing to find the pattern — to 'get the joke'. A few milliseconds later, before the subject had enough time to laugh, the increased brain wave activity spread to the sensory processing areas of the brain, the occipital lobe. The increased fluctuations in delta waves reached a crescendo of activity and crested as the brain 'got' the joke and the external expression of

laughter began. Derks' findings show that humor pulls the various parts of the brain together rather than activating a component in only one area.

## **Learning to Laugh**

How does one go about laughing? Who can one get that humor perspective which can so effect your spirit, body, & mind? How do you learn to access the lighter side of yourself in an often-tragic world of nursing?

Laughing at yourself is not always easy. Frequently one is too immersed in a problem to find any humor in it. It can help to seek out people with that special flair for seeing the funny side of a situation; to use the talent available to aid in the quest for laughter and comic release.

There are many great resources for nursing humor. (I have included a list of resources at the end of this article for you to use.)

One of the best is the Journal of Nursing Jocularity, a quarterly periodical. Subscribing to the journal will give you the opportunity to read true stories of hilarious nursing encounters; as well as cartoons, parodies, jokes, reviews of humorous books, and interviews with professional humorists. JNJ also holds an annual conference on "Humor Skills for Health Professionals".

Another way to keep ourselves laughing is to stay in touch with our "inner clown", that playful, childlike nature that we all have but perhaps fail to acknowledge due to the seriousness of our work. Many resources and training programs exist. One can even go so far as to actually become a professional clown. (Again, see attached resources list.)

## **Summary**

Humor and laughter can be effective self-care tools to cope with stress. They can improve the function of the body, the mind, and the spirit. An ability to laugh at our situation or problem gives us a feeling of superiority and power. Humor and laughter can foster a positive and hopeful attitude. We are less likely to succumb to feelings of depression and helplessness if we are able to laugh at what is troubling us. Humor gives us a sense of perspective on our problems. Laughter provides an opportunity for the release of uncomfortable emotions which, if held inside, may create biochemical changes that are harmful to the body.

People can increase their beneficial laughter by adding exposure to humorous material. Caregivers can consciously change their behaviors to provide more laughter and cheer in their work settings. Humor resources are plentiful. Laughter training exists. We can become our own best medicine.

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## **HUMOR RESOURCES**

American Association for Therapeutic Humor

Networking source for application of humor in caregiving professions. Excellent bimonthly newsletter and annual conference. A.A.T.H.; 4534 West Butler Dr. Glendale, AZ 85302  
Phone (623) 934-6068 Email: office@aath.org Web: www.aath.org

Chordiac Arrest:

Barbershop Quartet of MD's singing funny songs about medicine. Send \$10 to: Chordiac Arrest, 527 East Third St., Lockport IL 60441.

Clown Camp:

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Clown Camp c/o University of Wisconsin at La Crosse,  
1725 State St, La Crosse WI 54601 (608) 785-6505.

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Humor Project.

Publishes Laughing Matters a quarterly journal. Excellent catalogue of humor books.  
110 Spring St., Saratoga Springs NY 12866. (518) 587-8770.

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Presentations about humor and laughter for health professionals. Consultation for creating humor programs and laughter libraries.

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